

Remarks

The application being filed herewith is a continuation application of co-pending U.S. Patent Application Serial No. 10/282,471, filed October 29, 2002 ("the Parent Application").

Amendments to the specification

The specification filed herewith is to be amended as set forth above.
Specifically:

1) A "Cross Reference to Related Applications" section has been added at page 1 to assert the continuation status of the application, as set forth above; and

2) In the Parent Application, in an Office action dated August 21, 2003, the specification was objected to for 91 various reasons set forth at length in pages 2 through 5 of the Office action. The Applicants take exception to most of the objections, and would like to be of record as doing so. Particularly, the Applicants are not aware of any rule which mandates that once an adjective has been used to modify a noun (for example, "agitator" to modify "belt"), that the adjective must thereafter be used in all instances in which the noun is used when there is no other recited noun with which the original noun could be confused. (For example, in the instant specification there is no other recited "belt" to be confused with the "agitator belt".) Likewise, the Applicants are not aware of any rule which mandates that reference numbers be used following every recitation of an element (e.g., "belt 106"). Notwithstanding, in order to expedite prosecution of the application, replacement paragraphs have been submitted as set forth above to address the contended objections to the specification. However, with respect to the objection at page 11 line 6 ("delete - -d- -"), the Applicants believe the Examiner meant line 16, and not line 6. Further, with respect to the rejection at page 11 line 15 ("change "a-" to

1 --a-d--"), this objection couples with the rejection at what is believed to be page 11
2 line 16. Specifically, in the original specification the term "a-d" had a line break
3 between the hyphen and the letter "d". In the replacement paragraph submitted
4 above no such line break exists.

5 No new matter has been added to the specification.
6

7 Objections to the drawings

8 In the Office action dated August 21 in the Parent Application, Fig. 10 in the
9 drawings was objected to for containing the reference number "427" which does not
10 appear in the specification.

11 Fig. 10 (drawing sheet 5) filed herewith has been amended over the original
12 drawings filed with the Parent application to remove reference number 427.

13 No other changes have been made to the drawings.
14

15 Previous Rejection of Claims under 35 U.S.C. § 102

16 In the Parent Application, in the Office action dated August 21, 2003, claims 1,
17 2, 10, 13, 17, 24 and 25 were rejected under 35 U.S.C. § 102 as being anticipated by
18 U.S. Patent No. 4,417,802 ("Forbes II", hereinafter "Forbes").

19 The Applicants respectfully disagree that claims 1, 2, 10, 13, 17, 24 and 25
20 are anticipated by Forbes.

21 As a starting point, the PTO and the Federal Circuit provide that §102
22 anticipation requires each and every element of the claimed invention to be
23 disclosed in a single prior art reference. (*In re Spada*, 911 F.2d 705, 15 USPQ2d
24 1655 (Fed. Cir. 1990)). The corollary of this rule is that the absence from a cited
25 §102 reference of any claimed element negates the anticipation. (*Kloster
Speedsteel AB, et al v. Crucible, Inc., et al*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir.
1986)). Furthermore, "[a]nticipation requires that all of the elements and limitations

1 of the claims are found within a single prior art reference." (*Scripps Clinic and*
2 *Research Found. v Genetech. Inc.*, 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010
3 (Fed. Cir. 1991 (emphasis added)). Moreover, the PTO and the Federal Circuit
4 provide that §102 anticipation requires that there must be no difference between the
5 claimed invention and the reference disclosure. (*Scripps Clinic and Research Found.*
6 *v. Genetech, Inc.*, id. (emphasis added)). Accordingly, if the Applicants can
7 demonstrate that any one element or limitation in claims 1, 2, 10, 13, 17, 24 and 25
8 is not disclosed by Forbes, then the respective claim(s) must be allowed.

9 The Applicants contend that claim 1, and claims 2, 10 and 13 which depend
10 therefrom, are not anticipated by Forbes. With respect to independent claim 1, that
11 claim includes the following limitations:

12
13 A toner cartridge, comprising:
14 a housing which defines a toner reservoir; and
15 a rotatable endless belt disposed within the toner reservoir. (Emphasis
16 added.)

17
18 As recited in Applicants' claim 1, the rotatable endless belt is disposed within
19 the toner reservoir (e.g., toner reservoir 104 of Applicants' Fig. 5). In the toner
20 cartridge described by Forbes, the rotatable endless belt is disposed outside of the
21 toner reservoir. Specifically, in Forbes the bag 80 is the toner reservoir. (See
22 Forbes Col. 5, lines 2-4: "A bag 80 containing a supply of toner particles therein is
23 disposed interiorly of container 78." See also Col. 5 lines 7-9: "bag 80 is open to
24 permit toner particles to pass freely from the uppermost portion thereof outwardly.")
25 Forbes further describes (Col. 5 lines 26-45) that slidably mounted plate 94 is used
to push toner particles from the bag upwardly and into contact with the belt 82. If
Forbes' belt 82 were disposed within the bag 80, then the slidably mounted plate 94

1 would not be required to engage the toner particles with the belt. As can also be
2 seen, in Forbes the "container 78" (generally equivalent to Applicants' "housing")
3 does not "define a toner reservoir", but merely supports a bag (80) that defines a
4 toner reservoir. Thus, the bag 80, and not the container 78, defines the toner
5 reservoir. Additionally, it is clear that the container 78 of Forbes is separate and
6 distinct from the "upper housing 88" which support the belt 82. (See Forbes, Col. 5
7 lines 12-14: "Conveyor belt 82 is positioned in chamber 86 in upper housing 88.")
8 Since belt 82 is clearly outside of bag 80, it is thus not "disposed within the toner
9 reservoir", as is required by Applicants' claim 1. (See also Forbes Col. 5 lines 8-12:
10 "A conveyor belt 82 is entrained about a pair of opposed, spaced rollers and located
11 at the uppermost portion, i.e., the open end, of container 78." (Emphasis added.))
12 It is clear from the above, and from Forbes's Fig. 3, that "chamber 86" (containing
13 belt 82) is separate and distinct from, and above, bag (toner reservoir) 80, and thus
14 the belt 82 is not "within the toner reservoir", as is required by Applicants' claim 1.

15 While the Applicants acknowledge that it is structure, and not intended use,
16 which render an apparatus claim either patentable or non-patentable over the prior
17 art, the Applicants believe that it is helpful in this case to explain the different uses of
18 the belt between Applicants' invention and what is disclosed by Forbes. In the
19 Applicants' invention the rotatable endless belt is used to agitate the toner.
20 Accordingly, the Applicants' belt is located within the toner reservoir so that it can
21 contact, and thus agitate, the toner. Forbes' belt, on the other hand, is used to
22 transfer toner from a toner reservoir (bag 80) to a mixing chamber (chamber 62 of
23 Forbes' Fig. 2), where the toner is then mixed with carrier granules by auger 69.
24 (See Forbes, Col. 5 lines 1-52.) For efficient extraction of toner particles from the
25 bag 80, Forbes has found it useful to locate the conveyor belt 82 at an open end of
the bag (Forbes Col. 5. lines 9-12), versus locating the conveyor belt in the bag. As
Forbes states at Col. 5, lines 46-51, "In recapitulation, it is clear that the particle

1 dispensing apparatus [i.e., conveyor belt 82] of the present invention automatically
2 discharges toner particles from the uppermost portion [i.e., the open end – see line
3 12] of the container [container 78, Fig. 3]."

4 For at least these reasons the Applicants contend that claim 1 is not
5 anticipated by Forbes. Since claims 2, 10 and 13 depend from claim 1, they are also
6 novel over Forbes, since it is axiomatic that any claim which depends from an
7 allowable base claim is also allowable.

8 Further with respect to claim 2, that claim includes the flowing limitations:

9
10 and wherein the toner reservoir is defined by a reservoir primary
11 surface within the housing, and further wherein the rotatable endless
12 belt is positioned proximate the reservoir primary surface. (Emphasis
13 added.)

14
15 As described above with respect to claim 1, the bag 80 of Forbes is
16 essentially equivalent to Applicants' "toner reservoir." Accordingly, the interior side
17 of bag 80 corresponds to Applicants' "reservoir primary surface." As is clear from
18 Fig. 3 of Forbes, Forbes' belt 82 is nowhere near being "proximate the reservoir
19 primary surface" (i.e., interior side of bag 80), as is required by Applicants' claim 2.

20 For at least this additional reason the Applicants contend that claim 2 is novel
21 over Forbes.

22 With respect to claim 17, that claim includes the following limitations:

23
24 An imaging apparatus, comprising:
25 a toner reservoir housing which defines a toner reservoir; and
a rotatable endless belt disposed within the toner reservoir.

(Emphasis added.)

1 As described above with respect to claim 1, in Forbes bag 80 (Fig. 3) is the
2 "toner reservoir", and conveyor belt 82 is located outside of the bag (toner reservoir),
3 and not within the toner reservoir, as is required by Applicants' claim 17.

4 For at least these reasons the Applicants contend that claim 17 is novel over
5 Forbes.

6 With respect to claim 24, that claim includes the following limitations:

7 A toner cartridge comprising:

8 means for housing a supply of toner, said means for housing the
9 supply of toner defining a non-cylindrical mixing region defined by a
10 periphery; and

11 means for engaging at least a portion of the toner at the
12 periphery of the non-cylindrical mixing region for agitating the toner.

13 The Applicants contend that Forbes' "means for engaging at least a portion of
14 the toner" (i.e., conveyor belt 82 of Forbes' Fig. 3) does not agitate the toner, as is
15 required by Applicants' claim 24. Rather, Forbes' belt 82 is a "conveyor belt" (see
16 Forbes Col. 5, line 9). As stated at Col. 5 lines 23-25, "in this way, conveyor belt 82
17 advances toner particles from the uppermost portion of bag 80 to plate 90 for
18 discharge through aperture 92" No agitation of the toner by belt 82 is
19 described. Further, as can be seen by viewing Fig. 3 of Forbes, the outer tractor
20 teeth (unnumbered) on Forbes' conveyor belt 82 will engage toner at the uppermost
21 portion of bag 80. As the toner is moved leftward towards outlet 92, no agitation of
22 the toner can occur. That is, the toner particles will be statically entrained between
23 the tractor teeth of belt 82 while being moved leftward, and thus no agitation of the
24 toner by the conveyor belt will occur. Likewise, toner at the uppermost portion of bag
25 80 is advanced by conveyor belt 82 to the discharge aperture 92 (Forbes, Col. 5,

1 lines 23-25) by a shearing motion (as is apparent from a review of Forbes' Fig. 3 and
2 a reading of Forbes' Col 5), and thus no "agitation" of the toner particles within the
3 bag 80 ("toner reservoir") 80 occurs. The interface between Forbes' belt 82 and the
4 open end of the bag 80 thus cannot properly be considered as a "mixing region", as
5 set forth in Applicants' claim 24.

6 For at least these reasons the Applicants contend that claim 24 is novel over
7 Forbes.

8 With respect to claim 25, that claim includes the following limitations:

9

10 A method of agitating toner, comprising:
11 placing toner in a reservoir; and
12 engaging at least a portion of the toner in the reservoir with an
13 endless belt to thereby agitate the toner within the reservoir.
14 (Emphasis added.)

15

16 As described above with respect to claim 24, the apparatus described by
17 Forbes (Forbes Fig. 3 and Col.5 lines 1-50) does not, and cannot, agitate toner
18 within the toner reservoir (the "toner reservoir" of Forbes being bag 80), as is
19 required by Applicants' claim 25. The apparatus of Forbes merely conveys toner
20 from bag 80 to outlet 92. No "agitation" of the toner is performed within the toner
21 reservoir of Forbes. In fact, Forbes describes any agitation as occurring in chamber
22 62 (Fig. 2) by augers 69 (see Forbes Col. 5 lines 17-20). Even if chamber 62 of
23 Forbes were to be considered as the "toner reservoir" (which the Applicants' do not
24 concede), the mixing in chamber 62 is performed by augers, and not by an "endless
25 belt", as is required by Applicants' claim 25.

For at least these reasons the Applicants contend that claim 25 is novel over
Forbes.

1 New claims

2 New claims 26-28 have been added. Support for new claims 26-28 is found
3 in Applicants' Figs. 5-13.

5 Summary

6 The Examiner is respectfully requested to contact the below-signed
7 representative if the Examiner believes this will facilitate prosecution toward
8 allowance of the claims.

10 Respectfully submitted,

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13 Date: September 12, 2003

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